

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. By virtue of the amendments above, Claim 20 has been canceled without prejudice or disclaimer of the subject matter contained therein. In addition, Claims 17-19, 21 and 23 have been amended. Therefore, Claims 2-10, 13-19 and 21-27 are currently pending in the present application, of which, Claims 2, 7, 13, 16, 17, and 19 are independent.

No new matter has been introduced by way of the claim amendments and entry thereof is therefore respectfully requested.

Allowable Subject Matter

The Applicants note with appreciation the indication that Claims 2-10, 13-16, 18, and 20-27 are allowed over the cited documents of record. The Official Action, however, also states that Claims 18 and 20-27 are objected to as being dependent upon a rejected base claim, but that these claims would be allowable if rewritten in independent form to include all of the features of the base claims. Because Claims 17 and 19 have been rejected, it will be assumed that Claims 18 and 20-27 are objected to as being dependent upon rejected base Claims 17 and 19.

By virtue of the amendments above, independent Claim 17 has been amended to include the equation " $E(u)$ ", recited, for instance in allowable Claim 2. In addition, Claim 19 has been amended to incorporate all of the features of allowable Claim 20. It is therefore respectfully submitted that Claims 17 and 19 and the claims that depend therefrom are allowable over the cited documents of record. Accordingly, all of the pending claims in the present application are allowable over the cited documents of record.

Drawings

The Official Action does not indicate whether the corrected drawings for Figures 2, 5, and 7 filed on February 20, 2004 as Replacement Sheets are approved. However, since the objections to the drawings from the previous Official Action have not been reiterated, the Applicants will assume that the corrected drawings have been approved. Should this assumption be in error, the Examiner is respectfully requested to inform the Applicants of such error in any future correspondence.

Claim Rejection Under 35 U.S.C. §112, second paragraph

The Official Action sets forth a rejection of Claims 17-27 as allegedly being indefinite. This rejection is addressed either by way of the amendments to the claims above or through the comments below.

With respect to Claim 17, the Official Action states that it is unclear as to what the Applicant is specifically calling an “image difference problem”. More particularly, the Official Action asserts that an “image difference problem” may include a wide variety of image differences. In addition, the Official Action asserts that the “space varying algorithm appears to be an adaptive algorithm that adapts a type of image processing to specific local features in an image.” In addition, the Official Action states that “this can broadly mean adaptive halftoning, or adaptive compression, to name a few.” The Official Action indicates that language is needed in Claim 17 to clarify these matters.

Although Applicants disagree with this rejection, Claim 17 has been amended to include a statement of the variational problem, in an effort to further prosecution of the present application. In this regard, it is respectfully submitted that the rejection of Claim 17 as being indefinite is now considered moot.

With regard to Claim 18, the Official Action states that it is unclear as to whether “a normalized steepest descent value” refers to “ L_j ” or “ μ_{NSD} ”. Claim 18 has been amended in minor respects to indicate that “ L_j ” is an iteration layer value and that “ μ_{NSD} ” is a normalized steepest descent parameter. The Official Action also states that various terms in Claim 18 lack antecedent basis. It is respectfully submitted that the additional language in Claim 18 provides a sufficient description for a complete understanding of these terms. It is thus respectfully submitted that the rejection of Claim 18 as being indefinite is now moot.

With regard to Claims 19 and 20, the Official Action states that there appears to be a lack of antecedent basis in the execution of the steps for processing each resolution layer. Claim 19 has been amended to include that “ u ” is the iterated image for each resolution layer is thus not the same as the output image recited in Claim 19. In this regard, the gradient G is calculated based upon the iterated image of each resolution layer and an output image is computed using the processed resolution layers. It is thus respectfully submitted that the rejection of Claims 19 and 20 as being indefinite is now moot.

Claim 23 has been rejected as being indefinite because the “initial conductive L_0 ” is not clearly defined. Claim 23 has been amended to correct a typographical error. More particularly, “conductive” has been changed to “condition”, which is described in the present specification.

Claim 21 has been rejected on the basis that there is insufficient basis for “ L_j ”. Claim 21 has been amended to denote that “ L_j ” refers to the gradient descent iteration and is thus definite.

Claim 25 has been rejected on the basis that the terms “the following variational problem” lacks sufficient antecedent basis. This rejection is respectfully traversed because these terms refer to an equation that follows these terms and thus do not require a prior

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introduction for them to be definite. That is, one of ordinary skill in the art would clearly recognize that these terms will be defined by text following these terms. The Examiner is therefore respectfully requested to withdraw the rejection of Claim 25.

As all of the rejections to the claims have been addressed and overcome, the Examiner is respectfully requested to withdraw the rejections of these claims as failing to comply with the provisions of 35 U.S.C. § 112, second paragraph.

Claim Rejection Under 35 U.S.C. §102

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 17 and 19 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by the disclosure contained in U.S. Patent No. 6,731,790 to Van de Velde et al. . This rejection is respectfully traversed because the claimed invention as set forth in Claims

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17 and 19 are patentably distinguishable over the disclosure contained in the Van de Velde et al. document.

Claim 17 has been amended to include the equation “E(u)”, recited, for instance in allowable Claim 2. In addition, Claim 19 has been amended to incorporate all of the features of allowable Claim 20. As Claims 17 and 19 include features deemed allowable in the Official Action, the rejection of these claims based upon the disclosure contained in Van de Velde et al. is considered moot. Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 17 and 19.

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please

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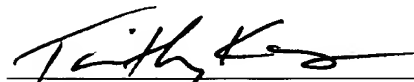
grant any required extensions of time and charge any fees due in connection with this request
to deposit account no. 08-2025.

Respectfully submitted,

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By



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